Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (**Previously Presented**). A method for estimating the time-dispersion of a channel in a communications system, the channel comprising *D* subchannels, comprising:

computing, from a signal received over the channel in a receiver, a set of estimated Channel Transfer Factors (CTF's) $\hat{H}[\upsilon]$, where ν ($0 \le \upsilon < D$) is the subchannel number,

calculating, for a predetermined strictly positive integer *d*, a correlation factor C_d representing the correlations, both in amplitude and in phase, between pairs $\hat{H}[\upsilon]$ and $\hat{H}[\upsilon + d]$ of said computed CTF estimates, and

estimating, in said receiver, the time-dispersion of said channel using the calculated correlation factor C_d.

2 **(Previously Presented).** A time-dispersion estimation method according to Claim 1, wherein a normalized expression for said correlation factor C_d is:

$$C_d \equiv \frac{2 \cdot \left| \sum_{\nu} \hat{H}^*[\upsilon] \hat{H}[\upsilon + d] \right|}{\sum_{\nu} \left(\left| \hat{H}[\upsilon] \right|^2 + \left| \hat{H}[\upsilon + d] \right|^2 \right)} ,$$

where the sums over ν are carried over available pairs of said computed CTF estimates.

3 **(Previously Presented).** A time-dispersion estimation method according to Claim 1, wherein a normalized expression for said correlation factor C_d is:

$$C_d \equiv \left(1+\frac{1}{\zeta_u}\right)\frac{2\cdot\left|\sum_{\upsilon}\hat{H}^*[\upsilon]\,\hat{H}[\upsilon+d]\right|}{\sum_{\upsilon}\left(\left|\hat{H}[\upsilon]\right|^2+\left|\hat{H}[\upsilon+d]\right|^2\right)},$$

where ζ_u is the mean channel estimation signal-to-noise ratio, and the sums over υ are carried over available pairs of said computed CTF estimates.

4 **(Previously Presented).** A time-dispersion estimation method according to claim 1, further comprising a step of looking-up in a pre-constructed mapping table a value of channel excess delay τ corresponding to the value of said correlation factor C_d.

5 **(Previously Presented).** A time-dispersion estimation method according to claim 1, further comprising a step of adapting some link parameters as a function of the value of said correlation factor C_d.

6 **(Currently Amended).** A device (100) for ~~executing a method for~~ estimating the time-dispersion of a channel in a communications system, the channel comprising D subchannels, the ~~method~~ device comprising:

a receiver configured to compute ~~computing~~, from a signal received over the channel ~~in a receiver~~, a set of estimated Channel Transfer Factors (CTF's) $\hat{H}[\upsilon]$, where υ ($0 \le \upsilon < D$) is the subchannel number,

a correlation unit configured to compute, ~~calculating,~~ for a predetermined strictly positive integer *d*, a correlation factor C_d representing the correlations, both in amplitude and in phase, between pairs $\hat{H}[\upsilon]$ and $\hat{H}[\upsilon+d]$ of said computed CTF estimates, and

a unit configured to estimate ~~estimating, in said receiver,~~ the ~~time-dispersion~~ time dispersion of said channel using the calculated correlation factor C_d ~~, said device comprising:~~

~~an input configured to receive the set of estimated Channel Transfer Factors (CTF's) $\hat{H}[\upsilon]$, where υ ($0 \leq \upsilon < D$) is the subchannel number, computed from the received signal, and~~

~~a correlations unit (102) configured to compute the correlation factor C_d, where *d* is a predetermined strictly positive integer~~.

7 **(Previously Presented).** A time-dispersion estimation device according to Claim 6, further comprising a parallel-to-serial unit (101) capable, when provided with a CTF vector $\hat{\mathbf{H}}$ as an input, of providing said correlations unit (102) with a series of individual CTF's $\hat{H}[\upsilon]$ classified by successive subchannel number v.

8 **(Previously Presented).** A time-dispersion estimation device according to Claim 6, wherein a normalized expression for said correlation factor C_d is:

$$C_d \equiv \frac{2 \cdot \left| \sum_{\upsilon} \hat{H}^*[\upsilon] \hat{H}[\upsilon+d] \right|}{\sum_{\upsilon} \left(\left| \hat{H}[\upsilon] \right|^2 + \left| \hat{H}[\upsilon+d] \right|^2 \right)} ,$$

where the sums over v are carried over available pairs of said computed CTF estimates.

9 **(Previously Presented).** A time-dispersion estimation device according to Claim 6, wherein a normalized expression for said correlation factor C_d is:

$$C_d \equiv \left(1+\frac{1}{\zeta_u}\right)\frac{2\cdot\left|\sum_v \hat{H}^*[\upsilon]\,\hat{H}[\upsilon+d]\right|}{\sum_v\left(\left|\hat{H}[\upsilon]\right|^2+\left|\hat{H}[\upsilon+d]\right|^2\right)},$$

where ζ_u is the mean channel estimation signal-to-noise ratio, and the sums over v are carried over available pairs of said computed CTF estimates.

10 **(Previously Presented).** A time-dispersion estimation device according to claim 6, further comprising a look-up table (103), capable of providing a value of channel excess delay τ corresponding to the value of C_d.

11 **(Previously Presented).** A time-dispersion estimation device according to claim 6, further comprising a link adapter responsive to the value of said correlation factor C_d.

12 **(Previously Presented).** A modulated-signal reception apparatus, comprising a device according to claim 6.

13 **(Previously Presented).** A telecommunications network, comprising at least one reception apparatus according to Claim 12.

14 **(Previously Presented).** A data storage device, comprising a computer readable storage medium storing computer program code instructions for executing steps of the method according to claim 1.

15 **(Previously Presented).** A data storage means according to Claim 14, wherein the data storage device is partially or totally removable.

16 **(Previously Presented).** A computer program stored on a computer readable storage medium, comprising computer program code instructions such that, when said program is executed to control a programmable data processing device, said instructions cause said data processing device to implement a method according to claim 1.

17 **(Previously Presented).** A time-dispersion estimation device according to claim 7, wherein a normalized expression for said correlation for factor C_d.

$$C_d \equiv \frac{2 \cdot \left| \sum_{\nu} \hat{H}^*[\upsilon] \hat{H}[\upsilon + d] \right|}{\sum_{\nu} \left(\left| \hat{H}[\upsilon] \right|^2 + \left| \hat{H}[\upsilon + d] \right|^2 \right)} ,$$

where the sums over ν are carried over available pairs of said computed CTF estimates.

18 **(Previously Presented).** A time-dispersion estimation device according to claim 7, wherein a normalized expression for said correlation for factor C_d is:

$$C_d \equiv \frac{2 \cdot \left| \sum_{\nu} \hat{H}^*[\upsilon] \hat{H}[\upsilon + d] \right|}{\sum_{\nu} \left(\left| \hat{H}[\upsilon] \right|^2 + \left| \hat{H}[\upsilon + d] \right|^2 \right)} ,$$

where ζ_u is the mean channel estimation signal-to-noise ratio, and the sums over ν are carried over available pairs of said computed CTF estimates.

19 **(Previously Presented).** A time-dispersion estimation device according to claim 7, further comprising a look-up table (103), capable of providing a value of channel excess delay τ corresponding to the value of C_d.

20 **(Previously Presented).** A time-dispersion estimation device according to claim 7, further comprising a link adapter responsive to the value of said correlation factor C_d.